Ford Motor Company Comments Regarding Louisville Metro APCD Draft STAR Program October 25, 2004

Regulation 1.02 Definitions

Rule: 1.2 Emission standard is being revised to mean "a requirement that is contained in a federal, state or local law or regulation; District permit; or Board Order, or is otherwise legally enforceable that limits the quantity, rate, concentration **or opacity** of the emission of an air contaminant on a continuous basis, including any requirement related to the operation of maintenance of a process or process equipment to assure continuous emission reduction, and any design, equipment, work practice, or operational standard." {Emphasis added.}

Comment: The proposed revised language inappropriately includes "opacity". Although opacity is generally considered synonymous with the term "visible emissions" and is separately subject to legally enforceable applicable requirements, it should not be an added descriptor of the term "air contaminant" under this definition. The term "emission standard" is used to identify reportable malfunctions. (See the draft revision to Section 1.2 in Regulation 1.07.) Reporting of malfunctions of excess opacity should be unnecessary unless there is also an excess of the regulated air contaminant itself.

Rule: 1.3 Malfunction is being revised to mean "the failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner that **may** result in emissions that exceed an applicable emission standard. {Emphasis added.}

Comment: The proposed revision would appear to make malfunction reporting the routine, overwhelming the current system, because every upset condition at a facility *may* result in emissions that exceed an applicable emission standard. Only those malfunctions that actually result in emissions of air contaminants above an applicable emission quantity or rate limit should be reportable. Therefore, the term "may" should be deleted from this provision.

Regulation 1.06
Stationary Source Self Monitoring, Emission Inventory, Development, and Reporting

Rule: 3.1 prescribes the reporting of *emission statements.*

Comment: As drafted, annual emission statements of **all** hazardous air pollutants as listed in Regulation 5.14 will have to be reported beginning next April 15. There should be some de minimis thresholds, (e.g., exclusion of reporting of trivial sources) for which no emission reporting is necessary. Otherwise, as drafted a tremendous amount of resources will be required to identify and report small amounts of emissions, e.g., those emissions from use of white-out bottles, etc. It would also be difficult to certify to the completeness and accuracy of such a report without some boundary for the universe of

processes being reviewed and considered. Further, it is should be pointed out that much of the emission reporting of HAPs will be based on USEPA or other published emission factors, engineering calculations and other readily available information like material safety data sheets or techniques which tend to have conservative assumptions.

Rule: 4.1.3 defines "*uncontrolled emissions*" as the "maximum amount of an air contaminant that could be emitted from a process or process equipment under it physical and operational design, **regardless of any enforceable limitation** on the potential to emit of the process or process equipment that reduces emissions that is vital to production of the normal product or to the normal operation of the process or process equipment." {Emphasis added.}

Comment: The terms "uncontrolled" and "uncontrolled emissions" are used under Sections 4.3.2.3 and 4.4. Such a definition would yield meaningless information as it does not consider other constraints. The uncontrolled emission of a coating operation, under such a definition, is boundless. Other factors, e.g., product configuration and coating specification, maximum production capability, must be applied to achieve a realistic level. Ramping emissions from actual to potential should be sufficient to determine the maximum expected impact of a facility on the environment. The term uncontrolled should be equated to the term potential and represent that level of emissions which could occur without considering independently operated emission control devices. Interdependent controls and process constraints should not be excluded from determining potential maximum emissions.

Regulation 1.07 Excess Emissions During Startups, Shutdowns, and Malfunctions

General Comment: The proposed revisions to the reporting and response actions related to startups, shutdowns and malfunctions are significant and very onerous. Much of the information being required may not be available within the short timeframes being requested and will likely be redundant to the deviation reporting requirements for Title V permitted facilities. Clearly, the APCD should be promptly notified of excessive emissions that threaten public health so that they may assist in any appropriate response activities. It should, however, be acknowledged that such notice is also typically made to the National Response Center and/or to the local emergency response activities. Notice regarding other, lesser "excess emissions" should not be required to be made at this same level of effort or concern. Typically notice as soon as practicable, but no later than the next work day soon be sufficient. Follow-up written reports providing additional detail and explanation will typically require more than a day or two to assess, prepare and submit. Only that information which is needed to determine whether changes to the program (SIP) are needed should be required. Further, redundant reporting should be eliminated.

Section 1 Definitions

Rule: 1.2 Excess Emissions is defined to mean "emissions that exceed an applicable emission standard. If there is not is not an applicable emission standard for a toxic air contaminant established pursuant to the requirements of Regulation 5.21 Environmental Acceptability for Toxic Air Contaminants (an applicable emissions standard would include a surrogate emission standard, such as volatile organic compounds that would

include that toxic air contaminant, for which environmental acceptability has been demonstrated pursuant to Regulation 5.21), then, for the purpose of the notification and reporting requirements of this regulation, excess emissions shall also include an appreciable increase in the emissions of a toxic air contaminant above the routine level of emissions that results from a startup, shutdown, or malfunction."

Comment: Excess emissions should be defined as those air contaminant emissions that exceed an applicable emission rate limit. If there is no applicable emission standard, then no excess emission report is appropriate. Thus, the remaining description, including the undefined terms "appreciable increase" and "above the routine level" should be deleted from the definition of "excess emissions". Otherwise, under Section 2.2, these non regulated emissions would be inappropriately "deemed a violation". It is inappropriate to consider an emission a violation unless there is an exceedance of an established emission limit or standard.

Section 2 Excess Emissions
Rule: 2.1 "The owner or operator of a process or process equipment has a general duty to ensure that the emissions from the process or process equipment are in compliance with all emission standards at all times. This includes starting up and shutting down the process or process equipment in a manner that the emissions are in compliance with all applicable emission standards and, consistent with safe operating procedures, stopping input feed to the process or process equipment and shutting down the process or process equipment if excess emissions would likely result from a malfunction."

Comment: Companies should have a general duty to ensure that they operate in compliance with the regulations and their permits. That said, it can be expected that despite best efforts and good maintenance, circumstances can arise to cause equipment to fail or malfunction. For that reason, regulations establishing agency notifications and procedures to address and respond to these conditions were adopted. Typically, the first standard to be at risk of being exceeded during a malfunction or emergency startup or shutdown event is the technology-based or process-dependent emission limit (e.g., pounds per million Btu or pounds per gallon of coating solids applied). Such limits are usually based on steady-state operation, fixed level of emission control and the maximum production level. On the other hand, the time-based emission rates (pounds per hour, pounds per month, etc.) which are more relevant to public health concern tend to be lower that limits during startup and shutdown conditions and may be achievable during malfunctions. Therefore, shutting down the process may not be necessary to protect public health and it should not be considered as a general duty requirement under this circumstance. Note too that emission testing is rarely performed during startup and shutdown conditions and that some emission standards appropriately provide relief for these periods.

Rule: 2.2 "Excess emissions from a process or process equipment due to startup, shutdown, or malfunction shall be deemed in violation of the applicable emission standard."

Comment: As previously discussed, excess emissions as defined should not be considered an automatic violation.

Rule: 2.3.5 "For a *malfunction*, whether the owner or operator, consistent with safe operating procedures, stopped input feed to the process or process equipment **and shut down the process or process equipment as soon as possible**," {Emphasis added.}

Comment: The reference to shutting down the process should be deleted. Unless there is potential immediate threat of harm to public health, shutting down the process should not be considered a necessary or expected outcome of a malfunction condition. Emissions during a malfunction can be minimized or kept at levels that are still protective of public health. In fact, as explained earlier, mass loading emissions may be able to remain below authorized levels during a malfunction when technology-based limits such as pounds per million Btu or pounds per gallon of applied coating solids are exceeded.

Section 3 Startup or Shutdown
Rule: 3.2 "If an **unplanned startup or shutdown during which excess emissions are expected to occur** is necessitated by events, other than a malfunction, that the owner or operator could not reasonably have foreseen 3 days before the startup or shutdown, then **the notification shall be given** to the District by telephone, facsimile, or electronic mail **within 1 hour** after the decision to start up or shut down the process or process equipment was made, and, if the notification is given by telephone, in writing as promptly as possible, but no later than the end of the day during which that decision was made." {Emphasis added,}

Comment: As drafted, notification of emergency startups and shutdowns that occur for which excess emissions are expected to occur must be given within 1 hour compared to the current requirement of "as promptly as possible, but no later than the one day following the determination to shutdown or startup." Changing the notice requirements to such a short time frame is unrealistic for all situations. It is noted that excessive "excess emissions" that could threaten public health will be reported under CERCLA or EPCRA to the National Response Center (NRC) and local emergency response (LEPC) activities. Under such a situation, crisis management efforts will likely be unfolding and corrective response actions will be underway. For situations that do not pose a threat to public health, normal response actions will be undertaken and a prompt notification should be sufficient. For these reasons, notification of such events should be a tiered approach. When notification must be made to the NRC and/or LEPC, then notification should be made to the APCD, although it would be preferable for the government agencies to coordinate such communication, especially during a time of crisis. However, when notification to NRC or LEPC is not needed, then the current prompt reporting should be sufficient. The draft rule should be revised to accommodate such notice. In addition, written notification should be made once the emergency situation is resolved and review can be made to assess the matter, typically 7 days after the event or after emission computations can be made.

Rule: 3.6 "If excess emissions during a startup or shutdown of a process or process equipment are expected to occur, then the owner or operator of the process or process equipment shall comply with **all** of the following:
3.6.1 All reasonable, available, and practical emission reduction measures, including process equipment design, operating procedures, and pollution prevention measures, shall be used to prevent or minimize excess emissions,
3.6.2 The **frequency and duration** of operation of the process or process equipment in the startup or shutdown mode **shall be minimized** to the maximum extent practicable,
3.6.3 A bypass of any related control equipment shall not occur unless necessary to prevent loss of life, personal injury, or severe property damage, and the extent and duration of any bypass shall be minimized to the maximum extent practicable, and
3.6.4 All emission and parametric monitoring systems for the process or process equipment shall be operated unless technically infeasible." {Emphasis added.}

Comment: It is reasonable to expect that efforts to minimize emissions to levels below the time-based mass rate limits (e.g., pounds per hour, tons per month) should occur during startup and shutdown situations. However, "all" of the actions listed may not yield this result. Consider the startup of a boiler. Typically, a boiler should be started up slowly (not quickly) to minimize unnecessary excessive wear to the boiler and to minimize emissions. Thus, requiring duration of startup to be minimized is counterproductive to the goal of minimizing emissions. This rule should be revised to simply require that excess emissions above emission standards should be minimized to the extent practicable during startup and shutdown situations.

Rule: 3.7 "If a person has notified the District pursuant to section 3.1, 3.2, or 3.3 but no excess emission occurred as the result of the startup or shutdown, then the owner or operator of the process or process equipment shall send a written report to the District that includes the name and telephone number of a contact person at the stationary source and the information required by sections 3.8.1, 3.8.3, and 3.8.4, except indicating that no excess emission occurred. The written report may be sent by mail, facsimile, or electronic mail, and shall be sent no later than the end of the next working day following the completion of the startup or shutdown."

Comment: This proposed requirement seems unnecessary and should be deleted. If a notification was made regarding the startup or shutdown, then a follow-up report will be provided. That report will identify the excess emissions (if any) and additional notification is unwarranted. As some emission data determinations may require additional time to assess whether excess emissions actually occurred, e.g., those emission calculations that must be performed at the end of the month, submitting a report too soon will be non productive. Therefore, additional time, e.g., 7 days after calculations are performed to determine whether an excessive emission occurred would be more appropriate.

Rule: 3.8 "No later than the end of the next working day following the completion of a startup or shutdown during which excess emissions occurred, whether or not initial

notification of the startup or shutdown pursuant to section 3.1, 3.2, or 3.3 was made to the District, the owner or operator of the process or process equipment shall send a written report to the District that includes the following information:"

Comment: As indicated above, additional time to prepare and submit a written report will likely be necessary and should be granted to generate the emission calculations and confirm whether emission standards were exceeded. Written reports should be provided at least 7 days following the date that emission calculations can be performed.

Section 4 Malfunction
Rule 4.1 If excess emissions from a process or process equipment resulting from a malfunction, or from an unforeseen startup or shutdown necessitated by a malfunction, occur **or are likely to occur**, the owner or operator of the process or process equipment shall, as promptly as possible, **but no later than 1 hour following the start of the malfunction**, notify the District by telephone, facsimile, or electronic mail. {Emphasis added.}

Comment: The terms "or are likely to occur" should be deleted, otherwise numerous reports will be required if even excess emissions above emission standards do not occur. In addition, similar to startup/shutdown reporting, notification within one hour should not be required for all situations, especially those that do not pose a public health threat. A tiered approach should be provided. In addition, the required actions that should be undertaken during a malfunction condition should be consistent with the potential threat that exists. As stated before, a malfunction that may prevent a technology-based emission standard to be achieved should not necessarily require a source shutdown. There should also be an emission increase above time-based emission standards that would cause a threat to human health for such definitive action to be required.

*Rule: 4.2 '*The initial notification of the malfunction pursuant to section 4.1 shall include the following information:
4.2.1 The name and location of the stationary source, 175
4.2.2 The name, address, telephone number, and electronic mail address of the person responsible for providing the information required by section 4.2,
4.2.3 The process or process equipment involved in the malfunction,
4.2.4 The date and time of the beginning of the malfunction, the estimated time before, consistent with safe operating procedures, input feed to the process or process equipment will be stopped and the process or process equipment shut down or the process or process equipment is returned to normal operation, whichever is earlier (the excess emissions end), and the estimated time period during which excess emissions are likely to occur,
4.2.5 To the extent that it can reasonably be determined within the context of the circumstances, the physical and chemical composition and estimated quantity and concentration of excess emissions for each air contaminant,
4.2.6 If known or suspected, the likely cause of the malfunction, and

4.2.7 If applicable and known, the reason the processes or process equipment will not be shut down immediately, consistent with safe operating procedures."

Comment: The amount of detail required to be reported is not needed, nor is it likely to be readily available, especially as soon as the initial notification is being requested. Typically, only notice of the malfunction and basic information should be all that is needed for the initial report. A follow-up written report can provide additional information once the cause and impact of the malfunction has been determined and any preventative plans have been evaluated. Typically at least 7 days after the event or emission determination will be needed.

*Rule: 4.4 "*If excess emissions during a malfunction of a process or process equipment occur or are likely to occur, then the owner or operator of the process or process equipment shall comply with **all** of the following:
4.4.1 All reasonable, available, and practical emission reduction measures, including process equipment design, operating procedures, pollution prevention measures, use of off-shift labor and overtime, and, consistent with safe operating procedures, **immediately stopping input feed to the process or process equipment and shutting down the process or process equipment**, shall be used to prevent or minimize excess emissions,
4.4.2 The frequency and duration of operation of the process or process equipment in a malfunction mode shall be minimized to the maximum extent practical,
4.4.3 A bypass of any related control equipment shall not occur unless necessary to prevent loss of life, personal injury, or severe property damage, and the extent and duration of any bypass shall be minimized to the maximum extent practicable, and
4.4.4 All emission and parametric monitoring systems for the process or process equipment shall be operated unless technically infeasible."

Comment: As with startup/shutdown situations, it is reasonable to expect that efforts to minimize emissions to levels below mass rate limits (pounds per hour, tons per month) should occur during malfunction situations. However, "all" of the actions listed may not yield this result. Consider an oxidizer used to control VOC emissions from a painting operation curing oven. Shutting down the oven would not necessarily reduce any VOC emissions that would be emitted during the malfunction of the oxidizer. Rather, if the vehicles have to be repainted or scrapped, more VOC emissions will be generated. Thus, requiring the shutting down of the process or process equipment could yield higher total emissions and impact to the environment. This rule should be revised to simply require that excess emissions above emission standards should be minimized to the extent practicable during malfunction situations.

Rule: 4.6 "**No later than 1 hour after the excess emissions ended,** the owner or operator of the process or process equipment shall notify the District by telephone, facsimile, or electronic mail. If this notification is made by telephone, the owner or operator shall provide written notification by facsimile or electronic mail by the end of that day. The written notification of the end of the malfunction shall include the following information:

4.6.1 The name and location of the stationary source,
4.6.2 The name, address, telephone number, and electronic mail address of the person responsible for providing the information required by section 4.6,
4.6.3 The process or process equipment involved in the malfunction,
4.6.4 The date and time that the excess emissions ended, and
4.6.5 If the initial notification to the District pursuant to section 4.6 was made by telephone, then the time that the telephone notification was made." {Emphasis added.}

Comment: Notification within an hour after a malfunction has ended is onerous and unnecessary to protect public health. This section should be deleted.

Rule: 4.7 "No later than **15 calendar days** after the excess emissions ended, the owner or operator of the process or process equipment shall send a written report to the District that includes the following information:
4.7.1 The name and location of the stationary source,
4.7.2 The name, address, telephone number, and electronic mail address of the person responsible for providing the information required by section 4.7,
4.7.3 The process or process equipment involved in the malfunction,
4.7.4 **Confirmation of the actual date and time that the excess emissions ended**,
4.7.5 **The physical and chemical composition and calculated quantity and concentration of excess emissions for each air contaminant**,
4.7.6 An explanation as to how each provision of section 4.4 was met, and
4.7.7 Any additional information requested by the District.

4.8 No later than **60 days** after the excess emissions ended, the owner operator of the process or process equipment shall send a written report to the District that includes the following information:
4.8.1 An analysis of the cause of the malfunction and the steps that will be taken to prevent or minimize similar occurrences in the future, and
4.8.2 The frequency of excess emissions resulting from malfunctions during the previous 2 years of the same or similar process or process equipment or that occurred because of the same or similar cause." {Emphasis added.}

Comment: Providing two follow-up reports is burdensome and unnecessary. A single report should be all that is required. Such report should provide a summary of the malfunction, actions taken and future preventative actions. Additional information is not necessary and should not be required.

Regulation 2.02 Air Pollution Regulation Requirements and Exemptions

Rule: Section 2 Exemptions
This section provides a listing of sources for which permits are unnecessary.

Comment: The list of exemptions should be expanded to include sources that US EPA deemed were trivial for Title V permitting purposes and all listed exemptions should be excluded from the emission reporting requirements established under Regulations 1.06 and 1.07.

Regulation 2.08
Emission Fees, Permit Fees, permit Renewal Procedures, and Additional Program Fees

Rule: Section 6 Additional Program Fees
6.3 For Fiscal Year 2005, Toxic Air Contaminant (TAC) program fees are required from each stationary source that, as of July 1, 2004, was subject to Regulation 2.16 Title V Operating Permits (Title V source), each stationary source that, as of July 1, 2004, applied for an operating permit pursuant to Regulation 2.17 Federally Enforceable District Origin Operating Permits (FEDOOP source), and each stationary source that is neither a Title V source nor a FEDOOP source but, **for calendar year 2002**, had actual emissions of 25 or more tons per year individually of sulfur dioxide, particulate matter, volatile organic compounds, or oxides of nitrogen (25 ton source). The TAC program fees are as follows:
6.3.1 For a Title V source, the sum of the following:
6.3.1.1 $2,529, and
6.3.1.2 The proportional amount of $108,750 based upon the percentage for the Title V source of the total hazardous air pollutant (HAP) and ammonia emissions reported to the District for **2002**. The District will make available a list of the Title V sources, the HAP and ammonia emissions reported by each Title V source, and the percentage of the total for each Title V source, and..." {Emphasis added.}

Comment: This proposed fee structure represents a significant new tax on Title V sources in Jefferson County. Without further justification, it is uncertain whether such a fee is warranted. For example, why can't implementation of the STAR program be handled largely by realignment of staff currently employed by the District? Most of the burden of the program is placed on Industry and not the agency. The agency resource costs should be clearly defined and related to the need. And while there may be a short-term increase, long-term, there should be little additional cost. HAP emissions should decline significantly over the next few years, under the federal MACT program. Also, the selected reporting period of 2002, used to serve as the basis for emission fee allocation, should be changed to 2004. Like Title V, any required fee should be based on the most recent data (e.g., 2004 versus 2002) which should be available by the time any required fees need to be collected. In addition, while most of the TACs are HAPs, about a dozen are not HAPs and there does not seem to be inclusion of non-HAP emissions into the fee computation equation.

Regulation 3.01 Ambient Air Quality Standards

Comment: This rule is not necessary and should be deleted. The US EPA establishes the national ambient air quality standards under its authority in the Clean Air Act. Rather than have separate rules, reference to the federal ambient air quality standards should be sufficient to avoid any inadvertent omissions or conflicts.

Regulation 5.01 Standards for Toxic Air Contaminants and Hazardous Air Pollutants

Rule: Section 3 General Duty
"The owner or operator of a process or process equipment from which a toxic air contaminant is **or may be** emitted shall provide the utmost care and consideration to prevent the potential harmful effects of the emissions resulting from the process or process equipment. **A person shall not allow any process or process equipment to emit a toxic air contaminant in a quantity or duration that could be harmful to the health *and welfare* of humans, animals, and plants**." {Emphasis added.}

Comment: This new provision is overly broad and vague. Literally a molecule of a TAC emission that "may be" emitted could be construed to be prohibited under this provision, not what one would believe to be the intended result. It is not well defined as to what "could be harmful to the health … of humans". It is perhaps even less definitive and more uncertain what is meant by the phrase "could be harmful to the … welfare of humans, animals and plants." How would one know if they are in compliance with such a prohibition? Certainly, such a broad prohibition would likely be challenged in the courts. This general duty requirement should be deleted entirely. At a minimum, the terms "or may be" should be deleted in the first sentence. In the second sentence, the terms "could be" should be replaced with "is" and the terms "and welfare" and "animals, and plants" should be deleted.

Rule: Section 4 New of Modified Process or Process Equipment that May Emit a Toxic Air Contaminant
4.1 "A construction permit required by the provisions of the Part 2 regulations for a new or modified process or process equipment that **may** emit a toxic air contaminant shall, except as exempted pursuant to section 4.2, incorporate the following provisions:
4.1.1 The allowed emission standard for a Category 1 or 1A TAC from a Group 1 or 2 stationary source shall have been demonstrated to comply with the environmental acceptability goals of Regulation 5.21 section 2.2 except as provided in Regulation 5.21 section 2.3,
4.1.2 The allowed emission standard for a Category 2 or 3 TAC from a Group 1 or 2 stationary source shall meet one of the following:
4.1.2.1 Has been demonstrated to comply with the environmental acceptability goals of Regulation 5.21 section 2.2 except as provided in Regulation 5.21 section 2.3, or
4.1.2.2 Has been demonstrated to comply **with the provisions of Section 3** of this regulation, and
4.1.3 As determined appropriate by the District, the construction permit shall require the owner or operator of the new or modified process or process equipment to install, calibrate, operate, and maintain a continuous or intermittent emissions or parametric monitoring system. Applicable records shall be maintained for a period of at least 5 years, made available to the District upon request, and submitted to the District as specified in the construction permit. " {Emphasis added.}

Comment: This new permitting provision is overly inclusive and should be provided other options to be acceptable. For example, sources installed or modified to reduce

toxic pollutant emissions or to meet the federal MACT should be excluded from these requirements. As MACT represents the maximum achievable control technology, it should be considered acceptable control under these rules. As noted above, it is uncertain how any demonstration can be made to comply with Section 3 as required by 4.1.2.2. Therefore, this section should be deleted.

Rule: 4.2.5 " A new or modified cold cleaner subject to the provisions of Regulation 6.18 Standards of Performance for Solvent Metal Cleaning Equipment Section 4 Cold Cleaners at a stationary source meeting **one** of the following:
4.2.5.1 The **only** permitted process or process equipment at the stationary source is a cold cleaner,
4.2.5.2 The cold cleaner is located at a gasoline dispensing facility identified in section 4.2.1, or
4.2.5.3 The cold cleaner is located at a stationary source identified in section 4.2.2." {Emphasis added.}

Comment: Small sink-like Safety Kleen cold cleaners used for maintenance purposes should be considered exempt regardless of location. Therefore, an additional exemption such as that drafted below should be added.

> *4.2.5.4 The cold cleaner has a sink-like design and is used only for maintenance purposes.*

Regulation 5.20 Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant

Rule: As drafted, Regulation 5.20 provides mechanisms to determine whether a chemical (toxic air contaminant or TAC) is a carcinogen, establishes that an additional unit risk estimate (URE) of 1 in a million (in $\mu g/m^3$) is the "benchmark ambient concentration" (BAC_C) and lists mechanisms for determining the chronic benchmark ambient concentration (BAC_{NC}) of non-carcinogens. In addition, the rule specifies that the APCD can make determinations as to whether a chemical is a carcinogen.

Comment: With respect to making determinations as to whether a chemical should be classified as a carcinogen, APCD should avoid rendering such determinations where the peer-review process by experts in this arena have not been completed and decided. Rather, only those chemicals for which sufficient scientific review has occurred and credible evidence has been published in peer-reviewed reports, e.g., the information published by USEPA in its Integrated Risk Information System (IRIS) or under IARC should be used. APCD could and should gather such information and publish it on its website rather than requiring that it be obtained by others.

The URE is an ultra-conservative value and has several safety factors and conservativeness built in. We believe that the URE is likely to be well below a real threshold of one-in-a-million risk, and equating BAC_C to $1X10^6$/URE is ultra-conservative. But such approach can be useful in establishing a "benchmark".

Similarly, the determination approaches of BAC_{NC} appear to be based on very conservative values. The first mechanism suggested -- equating BAC_{NC} to RfC (Reference Concentration in $\mu g/m^3$ of a TAC over a 24-hour averaging period established by USEPA) – may be a reasonable approach to establish a benchmark, but RfC already has a likely safety factor of at least 300. The other approaches, however, rely other states (California and Michigan), other detailed analyses or the overly-conservative "catch-all" approach of equating BAC_{NC} to 0.04 $\mu g/m^3$. These other approaches may be inappropriate in determining the BAC_{NC} as each has it own biases and extra safety factors depending on views of the states or researchers generating the values. Further, the "catch-all" value appears to treat new chemicals, i.e., those that do not have an established RfC or other recognized health effect value, more seriously than those chemicals for which an RfC has been established. An even if the new chemical turns out to be much safer than an existing chemical, its use could be restricted or prohibited under the rules. Rather than establishing these additional approaches in the rules, APCD should be required to use the USEPA values where available and, where not available, APCD should be required to undertake a public notice and comment process in order to establish the BAC_{NC} values for these new chemicals. In addition, APCD should maintain the current values on its website.

Regulation 5.21 Environmental Acceptability for Toxic Air Contaminants

Comment: Determining an environmentally acceptable (EA) value for a TAC is a difficult prospect. The approaches used in the draft rules, to equate acceptability to 1 to 10 in a million risk for carcinogens or suspected carcinogens or 0.2 to 1 of the 'hazard quotient" start with overly conservative estimates, ones that already have several safety factors built in. Then, when using ultra-conservative to very-conservative mathematical and modeling approaches (e.g., SCREEN3 and ISC3) to adjust the theoretical concentration impacts of "maximum" emission rates that may occur further exaggerates these safety margins. Such conservativeness is further exacerbated by inappropriate and technically unsound requirement to sum the effects of various chemicals and risks. Summation of separate carcinogens or suspected carcinogens stretches the tread of technical reasonableness beyond the breaking point. While some substances may have similar pathways and effects that toxicologists, health and medical professionals might be able to agree upon, it should not be the default determination that all substances exhibit additive effects. When all the computations are put together, significant overestimation of the potential impact is the likely result. In addition, attempting to establish best available technology for toxics (TBAT) based on welfare benefits is a difficult, if not impossible task.

As proposed, it appears that alterations of existing sources to less toxic chemicals may be unacceptable as such would be considered a modification and emission of the new chemical(s) would likely exceed the EA values prescribed in the tables. Such a result clearly is not in the best interest of community or the facility. For example, converting a 100 MMBTU per hour coal-fired boiler to natural gas would be a modification under the rules for which a comparison of the maximum concentrations of TACs from burning natural gas to the EAL_C (environmentally acceptable level) would be required. Applying published USEPA TAC emission factors (AP-42) for natural gas burning, and applying some of the approaches provided in Regulation 5.22, exceedance of the ultra-

conservative EALs can be expected. Thus, converting the coal-fired boiler could be prohibited after applying these rules literally. Further, ground-level (unexhausted) emission sources, e.g., sum of natural gas direct-fired heaters, painting operations, cleaning operations, etc., will likely exceed some EALs. (See Attachment 1 for simplistic examples of determining the maximum concentrations and comparison to the EALs.)

Clearly, installation of cleaner, better technology sources should be encouraged, rather than be discouraged by application of these proposed rules. Existing source modifications to incorporate the federal MACT standards or to reduce more toxic TACs with less toxic TACs should be excluded from these analyses. Combining different TACs (e.g., see Sections 2.2.3, 2.5.3 and 2.8.2 and Equations 2 and 5) should not be performed except perhaps to demonstrate that improvement will occur when modifying an existing source/facility.

Regulation 5.22 Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant

Comment: The factors and approaches to determine the maximum ambient concentration (Max_{Conc}) are very conservative and yield results well below expected actual ambient concentrations. In addition, the proposed treatment of "intermittent emissions" is inappropriate as truly intermittent emissions could be below 10 percent of the maximum hourly rate. As the focus is on chronic effects which correlate better to annualized emissions, annualizing intermittent emissions should be used regardless of how much lower they may be to the single hour's maximum rate. Given the conservativeness built into the first 3 tiers, it would be expected that many facilities will have to undergo the thorough modeling of Tier 4 to better estimate potential Max_{Conc} levels. In addition, considering the conservativeness of the modeling, model validation may be needed to better correlate the real maximum emission concentrations to the computed theoretical Max_{Conc} levels. Additional adjustment should be provided where the modeling is shown to exaggerate the Max_{Conc}.

Regulation 5.23 Categories of Toxic Air Contaminants

No additional comments.